dogmatically; the reasons are given why other statements are true. In some places the topics are treated with a great deal of completeness. Other subjects are rather more hastily dealt with; and, occasionally, there is what seems to us an omission. For instance, the author could well make some reference to the blue-line on the gums in lead-poisoning; and in describing the joints it would be well to refer to new-growths affecting the joints and to tubercular joints. One might take exception also to some of the statements; as, for example, where he tells us that a very large proportion of cases of epilepsy have their origin in syphilis. In general, however, the statements are such as would meet with general approbation.

The book is eminently practical. This is seen not only in the clear portrayal of symptoms in the text, but as well in the illustrations. Almost without exception these have been selected because they serve some definite purpose in making clear some otherwise obscure point. Many serve to illustrate the subject of nervous diseases; and some of the diagrams illustrating the mechanism of nervous symptoms are particularly serviceable. We would also speak of the illustration on page 322, showing the explanation of the symptoms of cirrhosis of the liver. This is a point, in reality, very simple, but yet always difficult for students to grasp, and the diagram from Taylor makes these symptoms clear at a glance.

The work is divided into two parts: Part I. dealing with the Manifestations of Disease in Organs; Part II. the Manifestations of Disease by Symptoms. Hare assumes that the natural method of arriving at a diagnosis is for the physician to note a prominent symptom, and then to consult a work under the head of this symptom, rather than to make a probable diagnosis of the disease in question and then to consult a text-book to see whether the disease fits the description in the book. Thus, for instance, the physician finds a patient vomiting. He does not make a probable diagnosis of the disease inducing vomiting, but turns rather to the article on vomiting, finds the disease of which this may be a symptom, and in that way reaches his diagnosis as to the diseased condition. While this may be true in many instances, in practice, at least, most physicians after studying the case make a probable diagnosis not upon one symptom, but rather upon the symptom-complex; and then, if in doubt, consult their references to see if this is a correct position.

The work is made much more valuable as a work of reference by two very complete indexes; one an index of diseases, the other an index of symptoms, organs, and terms. By putting in two indexes our author has really made his work available to the physician who wishes to consult it either because he believes he has a certain definite disease to deal with or because he wishes to see what disease the symptom that is present indicates.

We believe that the book is more valuable for practitioners than for students, merely for the reason that the physician of wide reading and experience takes a broad and comprehensive view of the topics treated and can place them better in their proper relations one to another. The student, with his narrower vision, is apt to get wrong conceptions of the disease from the study of single symptoms and signs. The book makes interesting reading, and, as before said, even a physician of wide experience is sure to gain much knowledge by reading it. It has appeared very opportunely and can be relied upon to call the attention of physicians to the fact that, important and indispensable as laboratory aids to diagnosis are, there is yet another side to diagnosis—that of the bedside observation and interpretation of symptoms. J. B. H.

TEXT-BOOK OF GENERAL PATHOLOGY AND PATHOLOGICAL ANATOMY. By RICHARD THOMA, Professor of General Pathology and Pathological Anatomy in the University of Dorpat. Translated by ALEXANDER BRUCE, M.A., M.D., F.R.C.P.E., F.R.C.S.E., Lecturer on Pathology, Surgeons' Hall, Edinburgh; Pathologist to the Royal Hospital for Sick Children; Assistant Physician and formerly Pathologist to the Royal Infirmary, Edinburgh. Vol. I. 8vo., pp. xix. 624, with 436 illustrations. London: Adam & Charles Black, 1896.

No one who thoughtfully reviews the progress of pathology during the past fifteen years can fail to discern the development of a very striking demonstration of the cause-and-effect relationship of the various processes of disease to their respective causes. The study of the bacteria, of their products, and of their influence in the production of certain well-marked pathological types has illumined a group of diseases formerly most obscure, and has shown the intimate relationship in each case of the specific cause to the particular structural and other changes characteristic of the disease.

Since science has long considered this simple cause-and-effect relationship an essential part of all natural phenomena, the tardy demonstration of such a relationship in pathological processes has been a distinct obstacle to the inclusion of pathology among the biological sciences. Until the appearance of final proof that in disease a similar relationship exists, and that pathological processes are governed by the same unchanging laws which control all other natural phenomena, it was almost impossible wholly to suppress the feeling that in disease we have to do with something occult and different from the ordinary phenomena of nature as revealed to us by the study of natural science. As has been hinted, this feeling was in great part due to the mystery which surrounded the occurrence of epidemics and of the endemic infectious diseases, and so long as this uncertainty continued the appeals of the pathologist to natural laws for aid in the elucidation of his problems were necessarily coupled with a measure of doubt as to the entire applicability of those laws to the processes of disease. With the demonstration of the complete causal relationship of the bacteria to infectious diseases the mystery has vanished and the last objection to the classification of pathology as a science has been removed. We may now apply with assurance the laws of physics and chemistry to the explanation of pathological phenomena.

Unfortunately, many of the authors of our text-books of pathology appear to have been slow to grasp this broader conception of disease, and their elucidation of pathological processes has been in so far limited and unsatisfactory. It is, therefore, a noteworthy merit of Professor Thoma's work that in it we meet ever-recurring evidence that the author has constantly in mind the wider relationship of disease to other biological phenomena. Everywhere he has aimed to adduce a rational explanation of the various phenomena which he describes, bringing out wherever possible their conformity to physical and chemical laws.

As would be expected, both from the rather special field of Thoma's personal researches and from the nature of the problems presented, the application of these principles is most complete and convincing in the chapters treating of the various disorders of the circulation, of the bloodvessels, and of inflammation. Hence we find histo-mechanical principles applied to the explanation of the development of new bloodvessels, and to the elucidation of the rate and character of the bloodflow through the vessels in the various conditions of anæmia, congestion, thrombosis, embolism, infarction, etc., and in the development of a collateral circulation. Again, we meet a similar line of discussion of the various phenomena of inflammation, and are as a result afforded rational explanations of stasis, diapedesis, emigration, exudation and transudation, etc.

While about one-quarter of the book is occupied with the discussion of these subjects, we nevertheless find in it also a careful presentation of our knowledge of the effects of traumatism upon the tissues, of intoxications and infections, of malformations, of the bacteria and of parasites, of malformations, of heredity, of the various nutritional disorders, and of tumors. In this way the work is made to cover all those subjects which relate to disease in general and which, together, comprise what is now usually included in the term "general pathology."

In a work of the magnitude of the present, and dealing with so wide a range of facts, some unevenness of presentation is almost inevitable. In the book before us this is due more to the unwonted elaboration of certain themes than to the neglect of any. Thus, in the chapters dealing with the changes in the circulation incident to disease and with inflammation we have a degree of elaboration of the subject such as is to be met with in no other general work on pathology with which we are acquainted, and in contrast to this other parts of the work appear at first sight to be somewhat neglected. As we examine them more critically, however, they are found to contain a concise and philosophical statement of the subjects which they treat, in which are included all the essential facts pertaining to them. If any part of the book is at all slighted, it is that which deals with the description of the various types of pathogenic bacteria. But this can hardly be cited as a fault, since in its astonishingly rapid development descriptive bacteriology has almost of necessity become a special field of research, and, as it happens, one which has not, so far as we know, attracted Professor Thoma to its ranks. Notwithstanding his very numerous writings in other departments, we are not aware of the publication by him of any original researches upon that subject.

As has been said, then, the work may be set down as a most excellent and philosophical presentation of the facts of general pathology, with a very special elaboration of certain of its departments. Throughout it is abundantly and well illustrated by a large number of excellent woodcuts and by four chromo-lithographic plates, a large proportion of the illustrations being entirely new. At the close of each section is a carefully prepared bibliographical table of the literature bearing upon the subject under discussion, and an index completes the book.

The work of the translator has been carefully and acceptably executed.

J. S. E.

A TEXT-BOOK OF BACTERIOLOGY, INCLUDING THE ETIOLOGY AND PREVENTION OF INFECTIVE DISEASES. AND A SHORT ACCOUNT OF YEASTS AND MOULDS, HÆMATOZOA, AND PSOROSPERMS. By EDGAR M. CROOKSHANK, M.B., Professor of Comparative Pathology and Bacteriology and Fellow of Kings College, London. Fourth edition. Reconstructed, revised, and greatly enlarged. 8vo., pp. xxx. 715. Twenty-two plates and 273 wood-engravings and photographs. London: H. K. Lewis, 1896.

THIS very handsome volume is a much enlarged and altered new edition of the author's well-known work upon bacteriology; so much so that, as is stated in the preface, it is, practically speaking, "a new work." Besides a careful reconstruction of the text there have been added twenty-six new chapters.

The work is divided into three parts, the first being upon methods, and including the most recent that have been generally adopted in studying the bacteria and investigating the etiology of disease. The methods of photographing the bacteria are briefly given in this division. Part II. deals with the infective diseases and the bacteria associated with them. Some of the subjects introduced are not usually spoken of in works of this kind, the writer upon bacteriology usually confining himself to such diseases as have had specific bacteria associated with them. The author's position, of which we approve, is that "in many diseases of man and animals it has not been possible to identify the contagium with a bacterium, or, indeed, with any micro-organism; but when the virus is chemically examined, or investigated with a view to protective inoculation, or utilized for experiments in serum therapeutics, such researches are within the province of the bacteriologist."

Part III. is systematic and descriptive, and contains a more or less extended account of about five hundred bacteria. The list as arranged for bacteriological diagnosis (p. 485 *et seq.*) is likely to be especially useful. There are five appendices upon yeasts and moulds, hæmatozoa, coccidia, apparatus in bacteriological laboratories, and bibliography, with a supplementary appendix containing extracts from the final report of the Royal Vaccination Commission.

The book is exceedingly well printed, and the plates and drawings support the author's well-known reputation in this direction. It is to be regretted that more attention has not been paid to the very excellent work done in this country. H. C. E.

REFERENCE-BOOK OF PRACTICAL THERAPEUTICS. By Various Authors. Edited by FRANK P. FOSTER, M.D., Editor of the *New York Medical Journal* and of Foster's *Encyclopædic Medical Dictionary*. Vol. I., A to Myrtol, pp. 652. New York: D. Appleton & Co., 1896.

IF evidence were wanting that the days of therapeutic nihilism are past, this very satisfactory reference-book would supply it. Recognizing the patience, extensive information, and painstaking industry of the editor, a lexicographer of ability, we have expected much, nor have we been disappointed. Although he has contributed extensively to this volume, we wish at times that it had been more. Yet we cannot expect that an editor shall be omniscient, so that errors of his collaborators escape correction. With so much that is excellent in the plan and in its accomplishment, the reviewer may seem to be captious as he calls attention to incorrect details; yet for reference accuracy is of the highest importance. We note a few departures from exactness which we have recognized. Pearson's solution of arsenic is not the equivalent of the official liquor sodii arsenatis, but is one-tenth as strong. We doubt if potassium permanganate is an antidote against all organic poisons; at least this is much further than the most enthusiastic advocate of its use (Moor) is ready to go. At times references are not to the best or most complete papers upon the subject—*e. g.*, Asaprol, from Cerna; Cereus grandiflorus, from Sharp, who obtained nothing because he used inert material. In the last instance the therapeutic summary is hopelessly bad. In Cocillaña a glucoside is credited to Eckfeldt, whereas in 1893 Eccles found an alkaloid which he named Rusbyine. Among active principles might well have been enumerated the amaroids. Some sections are incomplete; for instance, that upon the internal use of antiseptics. The Pharmacopœial etymology and nomenclature have at times been departed from. Taken as a whole, the work shows that authors have, as a rule, been consulted in the original. Yet there are exceptions, and we appreciate the indirect compliment to the department of Therapeutic Progress of this JOURNAL in noting that one of the collaborators, at least, has consulted it. Typographical oversights are exceedingly rare; perhaps the misspelling of Susruta is the most glaring. The work will not supplant the text-book, system, nor dictionary, but it will to some extent supplement them. It will be useful to student and practitioner alike, and deserves a convenient place for daily use.

R. W. W.

DIE KRANKHEITEN DER WARMEN LÄNDER. EIN HANDBUCH FÜR AERZTE. Von DR. B. SCHEUBE, Fürstl. Physikus und Sanitätsrat in Greiz, früherem Professor an der medicinschule in Kioto, Japan. Jena: Gustav Fischer, 1896.

TROPICAL DISEASES. By DR. B. SCHEUBE.

THE peculiarities of disease in the tropics are becoming of greater and greater importance, and for those who have to deal with them, either in their homes or in the persons of returned travellers, we know of no more useful guide than this one. That the author, a worthy disciple of the careful school of Ernst Wagner, made good use of his time while professor in the medical school in Kioto was shown before this by scattered articles and more recently by his masterly monograph on beri-beri.

The various diseases are described systematically, beginning with general infectious diseases. Then follow intoxication (pellagra), diseases due to animal parasites, diseases of organs, and external diseases. The history and geographical distribution of each disease are briefly described. The remarks on prophylaxis and treatment are sufficiently full and explicit. At the end of each chapter is a useful bibliography. A few of the author's statements seem to require comment. He believes that two distinct conditions have been and may still be included under the term typho-malarial fever. In one the patient has a combination of both typhoid and malarial infections, the clinical characteristics of which vary in different cases. The other is a malarial fever pursuing the course of typhoid. No protocols are given to sustain the latter view, the author's observations having been made before the parasites were known, but from his description we fail to see how he can apply the term as he does. A case like that of Dr. Scheube's second form (p. 95) is at the present time under the observation of the writer of this review. In this case the patient has not been exposed to malaria and his blood shows no parasites. Our experience goes to show that in non-malarial localities such cases are not rare, while, on the other hand, we know of no observation showing the existence in them of malarial parasites. The statement found in all German works on the subject, that anchylostomiasis occurs in the Southern United States, is repeated by Dr. Scheube, but as no references are cited we suppose he is only repeating the old and erroneous statements of Hirsch and others.

The author holds that amœbæ have not been proved to be the causes of dysentery, but his objections to the views of those who have a contrary opinion are not altogether relevant. Especially irrelevant are the assertions that cases of dysentery occur without amœbæ, and that amœbæ occur in the stools of persons without dysentery.

The volume is well printed. It can be recommended as a useful handbook, and especially to explorers, medical missionaries, and others who are called upon to face the diseases common in or peculiar to the tropics. G. D.

MITTEILUNGEN AUS DEN GRENZEBIETEN DER MEDIZIN UND CHIRURGIE. (CONTRIBUTIONS FROM THE BORDERLAND OF MEDICINE AND SURGERY.) Edited by J. MIKULICZ and B. NAUNYN. Vol. I., Part IV. INJURIES OF THE VERTEBRAL COLUMN, WITH A CONTRIBUTION TO THE PHYSIOLOGY OF THE HUMAN SPINAL CORD. By THEODOR KOCHER. 8vo., pp. 245. Jena: Gustav Fischer, 1896.

A SERIES of monographs with the very happy title of Contributions from the Borderland of Medicine and Surgery has been projected by Mikulicz, the distinguished surgeon of Breslau, and Naunyn, the equally distinguished physician of Strasburg. The present contribution is an extensive monograph on Injuries of the Spine by Kocher, apparently not complete, since it terminates with the statement that the conclusion will follow. Whether this means the conclusion of the volume or of Kocher's monograph is not clear.

The portion before us consists of 245 pages of text, illustrated by five plates and eighty-six figures in the text. The illustrations are admirable; the half-tones, largely from specimens, really illustrate the text which they accompany, and give one an admirable idea of luxations, fractures, fracture-dislocations, etc., as well as the pose of the patient after such accidents. The plate (V.) which illustrates fracture of the spine is certainly the most beautiful of the kind we have ever seen, the color and the drawing being true to life. Then follows a plate giving the cutaneous distribution of the various nerves, distinguished by varying colors, followed by two plates, admirably shown in colors, also illustrating the muscular distribution of the brachial plexus, and another of the lumbar and sacral plexus, and finally the distribution of herpes zoster of the face and neck in line with the distribution of the nerves.

In addition to this, seventy-eight cases are referred to at greater or less length. The material at hand, therefore, for so accomplished a clinician as Kocher is very great.

The book consists of two parts: first, injuries of the vertebral column with an addition on the physiology of the human spinal cord, and, secondly, lesions of the spinal cord in injuries of the vertebræ. The author takes up contusions, distortions of the vertebræ, and unilateral luxations, and, later, isolated fractures of the vertebræ; next, total fracture-dislocations, considering them first in general, and then later the special indications in each region of the body. The same course is pursued with the spinal cord: first, partial lesions, including contusions, hemisection by stab-wounds, etc., and later the total transverse lesions. Each region of the body is considered separately, from the cervical region to the cauda equina. In general it could be predicted of so accomplished a surgeon that his advice would be sound and his treatment neither too radical nor too conservative.

With the space at our command it is impossible more than to indicate, therefore, the general scope of the work. To take up controverted points and discuss the views of the author upon each of them would burden our readers too much. It is one of the books "to be chewed and digested."

W. W. K.

THE OPERATIONS OF SURGERY. By W. H. A. JACOBSON. Third edition. 8vo., pp. xiv. 1337, with 398 illustrations. London: J. & A. Churchill, 1897.

THE nine years that have elapsed since the publication of the first edition finds the book in its third edition increased by over 300 pages and the woodcuts doubled in number. The 300 pages, however, do not represent the whole of the addition, inasmuch as the sections on Antiseptic Surgery and on Anæsthetics have been omitted and their places filled with new matter. The reason for the omission is because the author believes that Mr. Lockwood's *Aseptic Surgery* and Dr. Hewitt's *Anæsthetics and their Administration* have practically replaced the two chapters which formerly were found in his own book. We are almost sorry for the omission, because the two chapters are very important, and, at least on this side of the water, the books which are expected to replace them would scarcely be in the hands of more than an occasional reader.

It is hardly necessary to review Mr. Jacobson's book. It has so thoroughly established itself as, at least in our opinion, the best operative surgery that we are acquainted with, that praise seems almost superfluous. Of all the books in our own library this is the one most frequently consulted, and if American surgeons knew it as widely as we would like, it would be in every library. Its superiority to other operative surgeries consists in the fact that it is far more than a mere manual of surgical technique. It considers in almost all operations the indications for the operations, the danger and difficulties the surgeon will encounter, and the modes of avoiding them or meeting them, the causes of failure, the aids in difficult cases, and in very copious foot-notes many details both of theory and practice which are of the greatest possible value.

American surgeons certainly have every reason to feel kindly to Mr. Jacobson, for he has been most generous in his recognition of their work. In running over the index of names for only the first four letters of the alphabet, we have found over twenty American surgeons whose work is referred to. On page 1302 Cheever has an unnecessary "s" and Halsted an unnecessary "a" in his name.

It seems strange to us in America that a man of Mr. Jacobson's years and fame should still be "*Assistant* Surgeon to Guy's Hospital," but then we suppose we ought to remember that the Prince of Wales is hard on to threescore years. Certainly Mr. Jacobson's renown has added much to that of Guy's Hospital, and we hope will long continue to add to its lustre.

We note one sorrowful change from the last edition: the dedication to his "three old friends," Arthur E. Durham, James F. Goodhart, and Edwin C. Greenwood, has added to it an appropriate Latin eulogy of Mr. Durham, who was so well known to many of his American readers and is lamented by them all. W. W. K.

THE RETROSPECT OF MEDICINE. A HALF-YEARLY JOURNAL CONTAINING A RETROSPECTIVE VIEW OF EVERY DISCOVERY AND PRACTICAL IMPROVEMENT IN THE MEDICAL SCIENCES. Edited by JAMES BRAITHWAITE, M.D. Lond., etc., assisted by E. F. TREVELYAN, M.D. Lond., B.S., M.R.C.P., etc. Vol. CXIII. January to June, 1896. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited.

THAT this well-known work retains its favor with the profession is due to the wise selection of its matter. Especially within the last few years have periodic reviews of medical progress multiplied. Many of them are much larger than *Braithwaite,* and so can give a much more extensive review than is possible in a smaller compass. But for the busy physician, who looks rather for a careful selection of the news of the day than for a survey of the whole field, this volume is difficult to excel. The selections are almost always admirably chosen. Occasionally an article of minor worth has been selected. So Fränkel's thyreo-antitoxin is mentioned, but not Baumann's more important thyroiodin. For the purpose we have mentioned, it is perhaps not an objection that many of the articles are taken at second hand. The printing and paper of the present volume are much better than in the edition long popular in America, and will no doubt assist in keeping up the reputation of the series. G. D.

cited. Chloroform-water is diluted with an equal part of ordinary water and given by the mouth in doses of from two to four teaspoonfuls every ten minutes. The other is three grains of menthol dissolved in five ounces of menstruum, of which the same dose as above is given at intervals after meals. Besides these, small portions of ice may be swallowed immediately after the meals. In the majority of instances the employment of these methods has been followed by success.—*Bulletin Général de Thérapeutique*, 1896, 23e liv. p. 720.

The Medical Treatment of Cancer of the Stomach.—M. ALBERT ROBIN, for awakening the appetite, uses a decoction of the bark of white condurango (15 to 250, boiled to 150) in dessertspoonful doses before each meal, or the tincture of nux vomica or ignatia in five or six drop doses before meals. After meals a capsule of ammonium chloride, two and one-half grains; sodium bicarbonate, four grains; and Dover's powder, one and one-half grains, is given. For assisting digestion during the meal a glassful of hydrochloric acid in water (1.66 to 1000) is sipped; and in the midst of the meal is taken a powder consisting of pepsin, seven and one-half grains; maltine [diastase], one and one-half grains; and pancreatin, the same quantity. For diminishing the fermentation, sulphur, sublimed, washed or precipitated, two and one-half to three grains; or a dessertspoonful of ammonium fluoride in water (1 to 300), during the meal. Or at its termination, in a little water, one and one-half grains of granulated naphtol may be given. If there is very acid vomiting, severe pain, or stenosis, lavage is useful.—*Bulletin Général de Thérapeutique*, 1896, 11e liv. p. 481.

The Treatment of Infantile Diarrhœas.—DR. LESAGE relies upon (1) an absolute diet of milk, even sterilized. (2) For drinking-water (Vals.), albumin-water, or water medicated with lactic acid, antipyrin, tannigen, benzonaphtol, or bismuth salicylate. (3) If the disease is serious, subcutaneous injections of artificial or blood-serum should be used. The former are of two kinds: (*a*) of massive dose or (*b*) of small dose. If the former, either sodium chloride in sterilized distilled water (7 to 1000), or sodium sulphate, 10; sodium chloride, 5, in sterilized distilled water, 1000; may be used in dose of an ounce three to six times daily. The purpose of these injections is to introduce into the circulation a large quantity of liquid to make up for losses by the intestine. Besides, they have a stimulant effect. The indications for their use are an algid type of infection and abundant loss of water. Of the second type are the small injections, for which the indications are emaciation, cachexia, atrophy with chronic debilitating diarrhœa. Two subcutaneous injections each day are given, to the amount of a drachm of the following solution: carbolic acid, 1; sodium chloride, 1; sodium phosphate, 1; sodium sulphite, 1; in distilled water, 100. The massive injections are contraindicated in manifest or latent tuberculosis. Provided that the viscera are healthy and lymphatic ganglia are normal, the small injections are indicated for all cachectic infants. In obtaining a specific blood-serum it is necessary to take into consideration the results of previous investigation, which, in brief, show that the agent of fermentation in milk is the bacterium coli, and it is this micro-organism which produces the virulence; as for the